# Making Sense of the Performance (Dis)advantage for Immigrant Students Across Canada

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## Abstract

International achievement measures such as the Programme for International Student Assessment (PISA) have traditionally reported a significant gap between non-migrant and immigrant student groups—a result that is often referred to as the *immigrant per-formance disadvantage*. This article examines first- and second-generation immigrant

student achievement results in greater detail across Canada. Overall, Canadian achievement results are atypical in relation to the international community in that immigrant student groups significantly outperform non-migrants in some provincial jurisdictions, and also significantly underperform in other provincial jurisdictions, in relation to reading, mathematics, and scientific literacy. This article examines these diverse results in relation to the available literature and offers a conceptual framework that explains the unique case of Canada. The framework highlights the importance of assessing immigrant student achievement by taking into account the level of individual characteristics, provincial policies, as well as sociocultural and demographic contexts across Canada.

Keywords: immigrant students, student achievement, education policy

# Donner un sens au désavantage ou à l'avantage des élèves immigrants au Canada en matière de réussite scolaire

## Résumé

Les mesures internationales des acquis comme le Programme international pour le suivi des acquis des élèves (PISA) indiquent depuis toujours qu'il y a un écart important entre les groupes d'élèves non migrants et immigrants – un résultat qu'on qualifie souvent de désavantage des immigrants en matière de réussite scolaire. Cet article examine plus en détail les résultats scolaires des élèves immigrants de première et de deuxième générations dans l'ensemble du Canada. Globalement, les résultats scolaires canadiens sont atypiques par rapport à la communauté internationale dans la mesure où des groupes d'élèves immigrants réussissent nettement mieux que les non-migrants dans certaines provinces et nettement moins bien dans d'autres pour ce qui est la de la lecture, des mathématiques et de la culture scientifique. Cet article examine ces résultats variés en lien avec la littérature disponible et offre un cadre conceptuel qui explique le cas unique du Canada. Ce cadre met en lumière l'importance d'évaluer les résultats scolaires des élèves immigrants en tenant compte des caractéristiques au niveau individuel, des politiques provinciales et des contextes socioculturels et démographiques ici et là au Canada.

Mots-clés : élèves immigrants, réussite scolaire, politique éducative

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#### Introduction

International migration is a feature that has characterized global mobility for centuries and indeed millennia, and has increasingly become a priority for nation states around the world. Governments are seeking to develop and implement the most effective policies to successfully manage diversity and integrate immigrant students so they can contribute to the economic prosperity and sociocultural fabric of their society. However, education is not a mere promoter of economic growth with instrumental value; rather, it is "an essential part of cultural development, with intrinsic value" (UNESCO, 1996, p. 14). Given the ethnic diversity across Canada, as well as a continuing influx of immigrants, including refugees, schools play a critical role to the integration of immigrants within this physically large country. By integration, we refer to structural and sociocultural dimensions of integration. Structural integration considers immigrants' prospects in the labour market, housing, education, and political and citizenship rights (Heckmann, 2005), while sociocultural integration encompasses immigrants' active participation in the social and cultural lives of their communities and affiliation with Canadian identity (King & Skeldon, 2010). In this regard, for example, it is crucial that immigrant children have jobs and income equivalent to their educational attainment as adults and contribute to the sociocultural fabric of their communities. The role of schools is to support this process and integrate immigrant children through education.

Overall, Canada possesses one of the highest immigrant student populations as a percentage of the total population (Organisation for Economic Cooperation and Development [OECD], 2012c). Immigrant groups in Canada are more diverse than ever before with respect to their countries of origin, socioeconomic background, and the channels through which they or their parents have entered Canada. These migrants include first-generation immigrants, traditionally classified as individuals who were born in another country and relocated to Canada, and second-generation immigrants, the children of first-generation immigrants. Certainly, this increased diversity is due to the significant numbers of newly arrived immigrants who are settling in Canada as refugees from Middle Eastern countries. For example, more than 40,000 Syrian refugees were recently resettled across Canada (see http://www.cic.gc.ca/english/refugees/welcome/) between November 2015 and May 2017. Given this drastic increase in the numbers and backgrounds of recent immigrants, among which children constitute a considerable share, the challenge of migrant integration has become a timely and pressing concern for provincial policymakers. Even for Canada, a country of immigration that has been occupied with the question of integrating its diverse population for decades, the increase in the proportion of immigrant students and the diversification among the new arrivals pose new challenges. In particular, the scaling up and management of targeted policies and services provided to immigrant populations across the country is an area requiring considerable financial and human resources.

The challenges posed by international migration and the integration of various immigrant groups cuts across all age demographics, including K-12 school-aged children. According to the latest data published in the Migrant Integration Policy Index (MIPEX; 2015), only Luxembourg, at 46 percent, has a higher share of the percentage of first- and second-generation students than Canada, which has 29.6 percent (Huddleston, Bilgili, Joki, & Vankova, 2015). Perhaps the most disconcerting international trend from the MI-PEX report was that education emerged as the greatest weakness in integration policies in most countries. In particular, the majority of immigrant pupils in significant parts of the world have little extra support to catch up if they're behind, quickly learn the language, and learn some of the rules of the language that they use at home. Overall, MIPEX (2015) asserted that poor outcomes of immigrant pupils are often accompanied with many new, but weak targeted policies, which are not always well implemented or effective in practice. Although Canada ranked significantly higher than the international average in the utilization of effective policies, the challenge of migrant integration is still a pressing concern for national and provincial governments. It is clear that international migration can be a force for positive development when supported by the right set of policies, of which educational policy is an important area (United Nations-Population Division, n.d.).

International assessments are frequently cited as a key measure of relative school outcomes across jurisdictions. Given their large sample sizes, these assessments can provide comparative information on the performance of non-migrant and immigrant populations, nationally, and internationally. Popular international assessments include the Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading and Literacy Study (PIRLS), and the Program for International Student Assessment (PISA). Nevertheless, PISA, which is administered by the Organisation for Economic Cooperation and Development (OECD), has largely become the standard metric upon which most education systems judge their relative performance (Baird et al.,

2011; Volante, 2016). PISA has even been likened to the "Olympics of education" in the popular media (see Alphonso, 2013; Petrelli & Winkler, 2008; Scardino, 2008) and continues to attract considerable attention around the world, including Canada (see Alphonso, 2016; Brown, 2014; Csanady, 2016; Canadian Press, 2013; Gordon, 2016; Hammer, 2010; McMahon, 2014; Ripley, 2016). Although a fair amount of criticism has been directed toward PISA for its growing influence on global education policies (see Feniger & Lefstein, 2014; Gaber, Cankar, Umek, & Tasner, 2012), it remains the most widely utilized measure for judging international student performance and the performance gaps between different segments of the student population. And, rightly or wrongly, the PISA performance results are also used as a proxy for student achievement in the three assessed domains: reading, mathematics, and scientific literacy. Of concern, the fit amongst the PISA domains and curriculum achievement in these domains is broadly matched given the international nature of the assessments.

Despite the ongoing criticisms and concerns, an extensive body of research highlights that PISA results exert a pronounced effect on education policies around the world, particularly within Western educational contexts (see Breakspear, 2012; Carvalho & Costa, 2014; Grek, 2009; Knodel, Martens, & Niemann, 2013; Milford, Ross, & Anderson, 2010; Salzer & Prenzel, 2014; Steiner-Khamsi & Waldow, 2012; Volante, 2016). As one example, PISA results have been frequently used to study the achievement gap between non-migrant and immigrant students within a country, sometimes in relation to particular cultural groups (see Behtoui, 2013; Cheema, 2014; Jonsson & Rudolphi, 2011; Lai et al., 2014; Meunier, 2011; Marques, Rosa, & Martins, 2007; Pong, 2009; Rangvid, 2007, 2010; Ron-Balsera, 2015; Pasztor, 2008; Sohn & Ozcan, 2006; Stomquist, 2012). PISA results have also been used as a globally comparative measure to examine achievement gaps of diverse student groups across various nations (see Azzolini, Schnell, & Palmer, 2012; Brunello & Rocco, 2013; Jensen & Rasmussen, 2011; Jerrim, 2015; Levels, Dronkers, & Kraaykamp, 2008; Martin, Liem, Mok, & Xu, 2012; Mendez, 2015; OECD, 2011, 2012a). Thus, PISA consistently serves as a comparative measure both within and across countries and contexts.

The influence of PISA also extends to provincial jurisdictions within the Canadian context (Dunleavy, 2011; Volante, 2008, 2013). Canada is rather unique in this regard since provincial governments are solely responsible for public K–12 education, and as such, possess overlapping but also different education policies. In fact, Canada is one of the few international jurisdictions where the OECD disaggregates their PISA results so that provinces have their mean scores reported separately in addition to the national average. The latter allows provinces to judge their relative performance against their provincial peers and international counterparts.

Within the context of non-migrant/immigrant comparisons, various factors such as socioeconomic status (SES), gender, and country of origin, among others, are frequently examined (see Acosta & Hsein-Yuan, 2014; Areepattamannil & Berinderjeet, 2013; Cummins, 2012; Dronkers & Kornder, 2014, 2015; Hachfeld, Anders, Schroeder, Stanat, & Kunter, 2010; Jungbauer-Gas & Gross, 2011; Marx & Stanat, 2012; Murat & Frederic, 2015; OECD, 2013a; Shapira, 2012; Simms, 2012). It is important to acknowledge that the previous characteristics operate within distinct national, regional/provincial, and sociocultural contexts with overarching education policies and distinct demographic characteristics. Policies can help narrow the achievement gap, but also unintentionally increase it if they are not designed or implemented properly. Research supports the previous claim, as evidenced by the variety of outcomes that result from various integration policies around the world (Driessen & Merry, 2011; Lahaie, 2008; Makarova & Herzog, 2011; Marschall, Shah, & Donato, 2012; Shpaizman & Kogut, 2010; Veerman, 2015). It is clear that some countries/jurisdictions have done a better job of facilitating a "smoother" transition for immigrants, which is reflected in their enhanced student achievement (Bilgili, Huddleston, & Joki, 2015; OECD 2013b; Schleicher, 2006). The latter suggests that the implementation of policies within diverse sociocultural contexts influences the educational outcomes of immigrant student populations.

Collectively, the available literature suggests that a range of individual/family, policy, and sociocultural and demographic contexts influence immigrant student achievement. Before examining this literature in greater depth, we offer an overview of some of the trends and trajectories that have characterized provincial variations in the achievement gap between non-migrant and first- and second-generation immigrants. This type of overview is crucial for going beyond the more general national level results. Observing the variations across provinces and examining, more specifically, under what conditions immigrant students perform better, in relation to the empirical literature, will inform the effort of provincial and international policymakers. Overall, the article addresses how well different provinces have addressed the performance disadvantage (see OECD,

2015a, 2015b) and offers a conceptual framework to make sense of these performance differences moving forward.

## **Immigrant Student Achievement Across Canada**

An important feature of the PISA framework is that each of three "life skill" domains reading literacy, mathematical literacy, and scientific literacy—is assigned as a major assessment domain on a rotating triennial format and, as a result, each is assessed in greater detail every nine years. Thus far, each literacy domain has been assessed as a major focus two times since the initial administration of PISA 2000. Canadian performance on PISA 2015, which focused on science literacy, was well above the OECD average with scaled scores of 527 in reading, 516 in mathematics, and 528 in science. These scores placed Canada in 2nd, 10th, and 7th place, respectively, in relation to the other 72 nations/economies that participated. These results are similar to the previous administration of PISA 2012, which focused on mathematics literacy, where scaled scores of 523 in reading, 518 in mathematics, and 525 in science were recorded. Interestingly, these results placed Canada in 7th, 13th, and 10th respectively, in relation to the other 65 nations/economies that participated in PISA 2012. Overall, Canada has consistently been the highest performing country in which English is the predominant first language. Despite these fairly laudable results, a closer inspection of disaggregated provincial results suggests there are some interesting differences in the performance of non-migrants when compared to their first- and second-generation immigrant student counterparts.

#### PISA 2015 Results

Results in the most recent administration of the PISA 2015, which focused on scientific literacy, were released December 6, 2016. Overall, these results suggested there were no significant differences between non-migrant students and their first- and second-generation immigrant counterparts within Canada. Non-migrant students, which accounted for 70% of the population, achieved a mean score of 530 (Council of Ministers of Education Canada, 2016). First-generation students, which accounted for 14% of the Canadian population, and second-generation students, which accounted for 16% of the population, achieved mean scores of 530 and 533, respectively (Council of Ministers of Education

Canada, 2016). Overall, 9% of the variation in science performance could be explained by socio-economic status (SES) across Canada, compared to 12.9% for the OECD average (OECD, 2016). Unfortunately, disaggregated provincial results that compared the achievement of non-migrant to their first- and second-generation counterparts are not available yet. These results will be released in a future reports. Although we can safely conclude Canadian immigrant students do not exemplify a performance disadvantage overall, we need to turn to previous PISA administrations in order to provide more finegrain analyses at the provincial level. Disaggregated provincial results allow comparisons across provinces and may shed light on the effectiveness of particular policy options.

## PISA 2012 Results

Results from PISA 2012, which focused on mathematics literacy, provide a glimpse into some of the provincial and regional variations that existed across Canada in relation to mean mathematics scores. Table 1 provides comparisons between non-migrant and first-and second-generation immigrant students and highlights mean score differences that were statistically significant. As indicated in this table, there were interesting variations across provinces. Indeed, what is aptly referred to as the performance disadvantage for immigrant students is actually an advantage in some provinces and regions—as indicated by the statistically significant higher mean scores in British Columbia and the Atlantic region. Nevertheless, not all provinces have mitigated the immigrant student performance disadvantage. Provinces such as Quebec, Manitoba, and Saskatchewan had significantly lower levels of performance for immigrant student groups.

 Table 1. PISA 2012 math results—Mean scores and mean score differences between non-migrant and first- and second-generation students

Province/ Region	Non-Im- migrant (NI) Mean Scores	First-Gen- eration (FG) Mean Scores	Sec- ond-Gen- eration (SG) Mean Scores	Mean Score Differences between NI and FG Students	Mean Score Differences between NI and SG Students
Alberta	521	524	527	-3	-6
British Columbia	521	549	522	-28	-1

Province/ Region	Non-Im- migrant (NI) Mean Scores	First-Gen- eration (FG) Mean Scores	Sec- ond-Gen- eration (SG) Mean Scores	Mean Score Differences between NI and FG Students	Mean Score Differences between NI and SG Students
Manitoba & Saskatche- wan	505	483	500	+22	+5
Ontario	515	531	513	-16	+2
Quebec	544	509	509	+35	+35
Atlantic Region	498	531	513	-33	-15
OECD	500	453	469	+45*	+31

Source: Adapted from CMEC, 2015.

Results in bold indicate a statistical difference. A positive difference means the results for non-immigrant students are higher while a negative difference means the results for immigrant students are higher.

\*Does not equal 47 due to rounding and the fact that certain countries were dropped due to having a low amount of immigrants.

Given the relationship between SES and student achievement, it is also helpful to understand how different provinces and regions are doing when this variable is controlled for in the analysis. Table 2 provides the differences between non-migrant students in relation to their first- and second-generation immigrant student counterparts, who possessed similar SES levels. This table also provides the OECD average, which allows comparisons with the international community. Only Quebec possessed a significant difference between non-migrants and first- and second-generation immigrant students, when SES was accounted for in the analysis. This difference is also larger than the OECD average, suggesting an acute immigrant performance disadvantage in this province. Conversely, British Columbia, Ontario, and the Atlantic region had higher scores for first-generation immigrant students, and Alberta showed higher scores for second-generation immigrant students.

Province/Region	Mean Score Differences between Non-Immigrant and First-Generation Students	Mean Score Differences between Non-Immigrant and Second-Generation Students
Alberta	-4	-16
British Columbia	-23	-8
Manitoba & Saskatchewan	+12	-6
Ontario	-18	-7
Quebec	+32	+28
Atlantic Region	-20	-3
OECD	+29	+18

 

 Table 2. PISA 2012 math results—Mean score differences between non-migrant and firstand second-generation students (after accounting for socio-economic status)

Source: Adapted from CMEC, 2015.

Results in bold indicate a statistical difference. A positive difference means the results for non-immigrant students are higher while a negative difference means the results for immigrant students are higher.

Collectively, the PISA 2012 mathematics results suggested there were important provincial variations in relation to non-migrant and immigrant students' achievement—results that are fairly anomalous when compared to the international community. For example, only 2 out of 25 European countries (Slovakia and Hungary) had PISA 2012 mathematics results where immigrants outperformed non-migrants after adjusting for SES (European Commission, 2013). These score differences were smaller than those reported in Table 2 for British Columbia and the Atlantic region. The remaining 23 countries in the European Commission report demonstrated the typical performance disadvantage, whereby non-migrants outperformed immigrant students, sometimes by more than 60 points, which translates to approximately 1.5 years of schooling. (Note: 39 PISA score points is roughly equivalent to one year of formal schooling, see OECD [2012b].)

#### PISA 2000–2009 Results

Results for PISA 2000 and 2009, which focused on reading literacy, indicated that immigrant students performed at a lower level in comparison to their non-migrant peers in every province across Canada, with the exception of the Atlantic region, where the results were identical (Hou & Zhang, 2015). In Quebec, Manitoba, and Saskatchewan, immigrant student reading scores were much lower, and the reported differences were statistically significant (Hou & Zhang, 2015). The latter suggests that these provinces are

experiencing persistent challenges with immigrant student achievement in mathematics and reading. The previous results also suggest that ameliorating the performance disadvantage in reading literacy may require more intensive supports than those required in mathematics, since the performance disadvantage in reading literacy was more pervasive across Canada.

Interestingly, science literacy performance in 2006 indicated that every province demonstrated a performance disadvantage. The largest differences between non-migrants and immigrants were observed in Quebec. In this province, first- and second-generation immigrants had mean scientific literacy scores of 483 and 501, compared to 540 for non-migrants (Statistics Canada, 2007). Nevertheless, Canadian performance was above the OECD average, with scores of 519, 528, and 541 for first-generation immigrants, second-generation immigrants, and non-migrants, respectively. Conversely, the OECD average was 450, 468, and 506 for these three groups (Statistics Canada, 2007). Despite these earlier results, the trajectory of scores over the last five PISA administrations suggests that Canada has steadily closed the achievement gap between non-migrants and immigrant student groups.

## **Making Sense of Immigrant Student Achievement**

An understanding of immigrant achievement results is no small task given the range of factors that have been associated with student performance. For example, the previously cited MIPEX report concluded that the most significant factors determining the educational attainment of migrant pupils are their parents' educational background, their language skills, the composition of their school, and the general structure and quality of the country's education system (Bilgili et al., 2015). Of course, these factors are in turn influenced by broader sociocultural and demographic characteristics that define nation states around the world. Collectively, the international trends noted in MIPEX can be juxtaposed against the Canadian context, where provincial jurisdictions are solely responsible for K–12 public education. Thus, across Canada one can consider immigrant student achievement through three interrelated lenses that underscore the important role of individual/family, provincial policies, and broader sociocultural and demographic characteristics in influencing immigrant student achievement. These three interrelated

lenses offer a unique conceptual framework to better understand the Canadian educational landscape. We offer a brief summary and review of these characteristics below. However, it is important to acknowledge at the onset that our review is not meant to be an exhaustive discussion of the full range of factors that have been associated with immigrant student performance (achievement) in the available empirical literature. Rather, we have focused our discussion on the most salient issues for understanding the Canadian context, which has a fairly unique educational governance structure in relation to the international community.

# Individual/Family Characteristics

Not surprisingly, one of the most robust determinants of student achievement, whether for a non-migrant or immigrant student is parental educational background, which is also a strong proxy for SES. Both large-scale reviews and cross-national analyses of PISA results have asserted the central importance of SES in explaining a significant portion of the variance in test scores (see European Commission, 2013; OECD, 2012b; Schnepf, 2007; Sirin, 2005). Admittedly, SES is likely a proxy itself for a complex factor representing parental influence and family educational values. As previously noted, 9% of the variation in PISA 2015 scientific literary performance could be explained by SES across Canada, compared to 12.9% for the OECD average (OECD, 2016a). These results clearly suggest that SES does *not* exert a uniform influence on immigrant student performance around the world. Indeed, the previously noted PISA 2012 results suggested a significant amount of variation across provincial jurisdictions within Canada (see Table 1).

Similar to SES, the relationship between gender and student achievement is particularly noteworthy. Girls have traditionally outperformed boys in reading and boys have traditionally outperformed girls in mathematics—with greater parity in science achievement. This finding is also supported by large-scale reviews and cross-national analysis of PISA assessment scores (see Else-Quest, Hyde, & Linn, 2010; OECD, 2016a). Perhaps the most interesting aspect of these trends is that key individual characteristics, such as SES and gender, interact with a variety of family characteristics such as the immigrant students' country of origin or, in the case of second-generation immigrants, their parents' country of origin. Hou and Zhang (2015) argue that variation by source region likely reflects the possibility that various immigrant groups value education differently and invest varied levels of effort into the education of their children. In their Statistics Canada report, Hou and Zhang (2015) further argued that the children of immigrants from East Asia (e.g., China) and South Asia (e.g., India) tend to have a higher educational attainment than those from Southeast Asia (e.g., Philippines), the Caribbean, Central and South America, and Southern Europe. These propositions suggest that the relationships between individual and family characteristics are mediated by overarching cultural considerations.

It is important to remember that while country of origin may partially explain some of the achievement differences reported across provinces, we need to guard against skewed perspectives of the academic potential of particular cultural groups. As an open society, Canadian society must treat immigrant families as all having the potential to make an important social and economic contribution to Canada (Volante, Klinger, Bilgili, & Siegel, 2017). School-based practitioners do not choose the SES, gender, or ethnicity of the immigrant students that appear in their classrooms. Rather, they are tasked with providing an engaging teaching and learning environment so that all their students can realize their academic potential. Thus we need to consider how policies can be developed to reduce these notable achievement gaps, particularly for cultural groups that have been traditionally marginalized within contemporary education systems. Indeed, the intersection of race, ethnicity, and class with student achievement is well documented in the literature suggesting culturally appropriate assessment and teaching strategies are needed for both immigrant and non-immigrant student populations alike (see Dei & McDermott, 2013; James, 2017; Volante, 2012). The latter is actually something provincial policymakers can influence through the development of specific education policies.

## **Provincial Policy Context**

Provincial educational policies across Canada typically acknowledge a responsibility to support immigrant students and English or French language learners, and the rights of immigrant students can commonly be found in provincial education acts and policies (e.g., British Columbia, 1996; Ontario Ministry of Education, 2007). Further, it is common to find specific educational programs focused on both first- and second-generation second language learners. These programs focus both on language and cultural development (e.g., Alberta Education, 2017, Nova Scotia Department of Education, 2003;

Ontario Ministry of Education, 2007; Saskatchewan Ministry of Education, n.d.). As one example, Alberta Education notes on their website that "the goal of ESL (English as a second language) programming is to provide students with instruction and support that will help them to speak the English language fluently, further their education, and become productive and contributing members of Albertan and Canadian society. ESL programming is funded for both Canadian-born and foreign-born students" (Alberta Education, 2017; see also Ontario Ministry of Education, 2007).

Further, these same Ministries and Departments have taken a leadership role in establishing strategies, procedures, and guidelines to support immigrant students, often under the framework of equity and inclusion of second language learners. For example, Ontario established an equity and inclusive education strategy that explicitly includes English (and French) language learners and immigrant students. Primary amongst its resulting goals was the call for the Ministry to "provide direction, support, and guidance to the education sector, so that every student has a positive learning environment in which to achieve his or her highest potential" (Ontario Ministry of Education, 2009, p. 11). Relatively similar documents and materials are produced across other Canadian provinces (e.g., Alberta Education, 2017; Nova Scotia Department of Education, 2003; Saskatchewan Ministry of Education, n.d.). As a further, more specific example, the British Columbia Ministry of Education (2015) recently developed a guide for refugee children, intended "for teachers and other school personnel to assist them in welcoming and supporting students, and families who have come from a refugee background" (p. 7). Previously, Manitoba Education (2012) developed a set of guidelines to support the learning and schooling needs of refugee children from war-torn countries. Common to these strategies and guidelines is an initial recognition of the value of diversity within schools and the need to support the learning needs of all children. Relatively general suggestions are then provided to not only support second language learners but also to engage their parents. Central to these suggestions are the goals to support the development of English language proficiency and social integration, while respecting students' first language and culture, and potential challenges (e.g., Alberta Education, 2009; British Columbia Ministry of Education, 2013; Manitoba Education, 2012; Ontario Ministry of Education, 2008).

As described above, the educational components of these provincial programs and guidelines focus on literacy and language proficiency, and this is certainly in alignment with the lower language proficiency scores found across measures such as PISA and other large-scale assessments. Alberta describes these as "the basic building blocks for effective communication, further learning, problem-solving and active citizenship" (Government of Alberta, 2009, p. 2; see also Ontario Ministry of Education, 2007).

#### Sociocultural and Demographic Context

Canada was the first country in the world to adopt multiculturalism as an official federal policy. Since the policy became law in 1988, the international community has generally lauded Canadian efforts to welcome immigrants from around the world. These efforts are particularly noteworthy given recent geo-political developments across Western Europe and the United States, which have brought immigration issues to the forefront of national debates. In some respects, Canada is one of the few remaining Western democracies which has taken a strong stance in favour of the benefits of immigration for economic and cultural development. The overarching Canadian sociocultural context is largely (although not exclusively) characterized as an open society with a growing immigrant population. One would be hard-pressed to argue that this has not had a beneficial impact on the educational outcomes of immigrant student groups, which are among the best for OECD countries, as noted in previous reports (OECD, 2011, 2012c).

Despite favorable national results, we need to also consider the specific migration context, since different provinces possess vastly different demographic characteristics across Canada. Consider the provincial differences that exist in relation to the cumulative proportion of first- and second-generation immigrant students across the country. Overall, the following cumulative percentages for immigrant students exist across Canada: Ontar-io (44%), British Columbia (36%), Alberta (25%), Manitoba (23%), Quebec (15%), Sas-katchewan (8%), New Brunswick (6%), Nova Scotia (4%), PEI (4%), and Newfoundland (2%) (CMEC, 2015). Three of the four most populous provinces have the largest percentages of immigrant students, and Quebec, Canada's second most populous province, has the 5th largest proportion of immigrant students. Given these numbers, those provinces with large proportions and numbers of immigrant students—such as British Columbia, Ontario, Alberta, and, to a lesser extent, Quebec—must pay more attention to the education and educational achievement of this relatively large population of students. The extent to which this significant proportion of the student population is explicitly identified

and supported within the nature and scope of provincial policies is an important area of inquiry.

Given the varying contextual differences noted above, both the demand and the resources available for targeted education policies vary across provinces. Depending on the numbers of immigrants in each province, there may be abundant or limited language policies or material resources for language learners (e.g., Government of Quebec, 2006). In areas with more immigrant children, there may be more investment in education policy-making, whereas in other places, given the lower levels in demand, immigrant students in need may not receive sufficient support. In a similar vein, the characteristics of immigrant students matter as well. Some immigrant children are in more disadvantageous positions than others. For example, those immigrant students coming from countries with fewer educational opportunities or political unrest and war may face particularly different challenges than immigrant students' whose families are highly skilled immigrants. According to Statistics Canada (2012), the largest proportions of visible minority groups in Quebec come from origin countries where the average PISA results are lower, in contrast to the origin countries of minority groups in Anglophone cities (e.g., Vancouver, Toronto). In the latter case, the majority of immigrants tend to originate from South Asian countries with very high PISA results. Such migrant composition and sociocultural and demographic characteristics are crucial for understanding why provincial differences exist.

Understanding the sociocultural and demographic contexts matters allows us to have a better understanding of the reasons for which certain types of education policies are developed. The policy choices are shaped in specific provincial contexts and these characteristics should be taken into consideration to assess the inherent linkages between education policies and immigrant students' integration. As an example, with few exceptions, immigrant children living in Quebec are required to attend francophone public schools, in a laudable effort to support French language and culture (Government of Quebec, 2006). Yet a challenge for these immigrant students may be related to the need for non-francophone immigrant students to learn French in a North American context in which the English language predominates the larger society, especially in the larger urban centres (e.g., Montreal) where the vast majority of immigrant families are found. Considering the lower immigrant PISA performance in Quebec, it is a relevant question to ask whether there is a mismatch between the existing language policies, the settlement of particular immigrant families, and the needs of the immigrant children for their integration in Canada.

Ideally, the settlement and support of immigrants by the federal government should be informed by the trends noted in the international assessment results. For example, the average difference in PISA mathematics performance between students who attend schools where more than 25% of students are immigrants, compared to students who attend schools with no immigrant students, is 18 score points—the equivalent of approximately six months of schooling (OECD, 2015c). However, the difference in performance between immigrant students and non-immigrant students of similar SES tends to be smaller in school systems with large immigrant populations and where immigrant students are as diverse in SES as other students. Thus, it is the concentration of socio-economic disadvantage in schools that has the most deleterious effect on immigrant student achievement. Collectively, these findings underscore the important role that settlement policies and subsequently school composition can play in influencing immigrant student achievement outcomes across Canada. Thus, federal and provincial governments need to work collaboratively to try and provide the most favourable school environments for immigrant student groups—particularly refugees who often come from the most challenging economic situations.

#### **Moving Forward**

As previously noted, Canada has one of the highest immigrant student populations as a percentage of the total population within the OECD, and these immigrant students continue to represent a growing proportion of the student population (OECD, 2011, 2012c). The large proportion of first- and second-generation immigrant students has important implications for Canadian society and the Canadian workforce, and there is recognition of the need to provide specific literacy-related programs and policies to support immigrants and the children of immigrants (e.g., Alberta Advanced Education, 2006; Alberta Human Resources and Employment, 2006). As a further example, the province of Manitoba, noting that "immigrants and refugees who arrive in Canada as older teenagers and young adults face several challenges as they attempt to realize their dreams for education

and employment" (Manitoba Education, 2009, p. 1), developed policies and programs to support immigrants who are in high school or post- graduation.

The Canadian PISA results suggest that, in spite of its large and growing proportion of immigrant students, the immigrant performance gap is not consistently reported across Canada, one of the few examples of participating countries in which an immigrant gap is not found (e.g., OECD, 2011). Nevertheless, given that education is a provincial responsibility, these results are best interpreted through an examination of provincial PISA results. First, the overall success of first- and second-generation immigrant students across provinces may at least partially be explained by the specific policies and programs directed to support English and French second language learners (e.g., Alberta Education, 2017, British Columbia Ministry of Education, 2009; Nova Scotia Department of Education, 2003; Ontario Ministry of Education, 2007; Saskatchewan Ministry of Education, n.d.). These documents highlight that there is a long history of second language support for these language learners, from K-12 education and commonly extending to subsequent community education. Despite this long tradition that appears to be present in all provinces, we cannot immediately conclude that there are no significant differences in terms of education policies and programs. When we are concerned about the effect of policies, we need to go beyond what the policies indicate on paper. In order to have a deeper understanding of the role that policies play on immigrant students' educational performance, a more systematic analysis that takes into account policy formulation, implementation, and effectiveness is needed. Such a comprehensive analysis can give us the detailed differences across provinces and what factors relate most significantly to students' performance.

Overall, the PISA results across provincial jurisdictions help to justify a primary focus on language proficiency in order to best support immigrant children's learning needs. Studies conducted by Roessingh and her colleagues suggest that the level and quality of support English Language Learners (ELL) receive along with their cultural capital are important determinants of language acquisition for immigrant student groups (see Roessingh, 2008; Roessingh, Kover, & Watt, 2005). Cummins (2001) found that regardless of the interventions and supports provided, students require five to six years to obtain sufficient language proficiency. Willms (1999) noted that immigrant children quickly developed language fundamentals over their first years in Canada; however, he also noted that even after 10 years, the non-migrant/immigrant language gap was equivalent to about two years of formal schooling. Perhaps more troubling is that the challenges

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ELL students face in Canadian high schools, despite their resiliency, often follow them to higher education settings (Roessingh & Douglas, 2012). The previously cited authors contend that this represents a significant loss of educational capital for Canada in an economic environment that needs the participation of these students, who are among the best and brightest. Overall, this acknowledgement of the challenges and time required to develop language proficiency appears to be missing from provincial documents and guide-lines. Further, there are few, if any, exclusions or accommodations for recent (first-generation) immigrant students when large-scale provincial tests or PISA are administered.

## Conclusion

Our analyses of the Canadian PISA results provide encouraging news for first- and second-generation immigrant children. Overall, Canadian students do well on each of the three domains within PISA, and immigrant students show little, if any, gap in their performance in relation to mathematics and scientific literacy. Yet an understanding of the relationships between individuals/families, policy, and sociocultural and demographic characteristics seems essential for provincial governments seeking to ameliorate the immigrant performance disadvantage. Certainly, Canadian educational policies purposely acknowledge not only the value of our immigrant community but also the responsibility to support these learners. It would be difficult to argue that such an acknowledgment would be sufficient to explain the success of immigrant students on measures such as PISA, and our specific educational programs are focused exclusively on language learning, an area where immigrant students continue to perform below their non-migrant counterparts. Our work highlights the need to more deeply explore the immigrant experience across provincial jurisdictions, with a focus on the impact of culture and ethnicity alongside policy and practice. We suspect there may be a need to tailor educational policies for first- and second-generation immigrant students based on their cultural heritage and the region of Canada in which they reside.

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